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RECENT AND FORTHCOMING MEETINGS

1951

7-25 May	Fourth World Health Assembly, Geneva
18 May	WHO Regional Committee for the Western Pacific, first session, Geneva
28-29 May	WHO Consultative Committee for Europe, first session, Geneva
1-18 June	WHO Executive Board, eighth session, Geneva
30 July-4 August	WHO Expert Committee on Insecticides, third session, Savannah, Ga.
3-5 September	WHO Consultative Committee for Europe, second session, Geneva
18-21 September	WHO Expert Committee on Health Statistics, Subcommittee on the Registration of Cases of Cancer as well as their Statistical Presentation, second session, Paris
18-21 September	WHO Regional Committee for the Western Pacific, second session, Manila
20-25 September	WHO Regional Committee for South-East Asia, fourth session, Rangoon
24-27 September	WHO Regional Committee for Africa, first session, Geneva
15-20 October	WHO Expert Committee on Environmental Sanitation, second session, Geneva
15-20 October	WHO Expert Committee on Mental Health, Alcoholism Subcommittee, second session, Copenhagen
15-20 October	WHO Expert Committee on Nursing, second session, Geneva
22 October-3 November	European Seminar on Alcoholism, Copenhagen
29 October-3 November	WHO Expert Committee on the International Pharmacopoeia, ninth session, Geneva
5 November	WHO Expert Committee on the International Pharmacopoeia, Subcommittee on Non-Proprietary Names, third session, Geneva
5-9 November	WHO Expert Committee on Maternity Care, first session, Geneva
12-17 november	Second Seminar for European Sanitary Engineers, Rome
16-20 November	WHO Expert Committee on Cholera, first session, New Delhi
21-29 November	WHO Conference on Morbidity Statistics; WHO Expert Committee on Health Statistics, third session, Geneva
26-30 November	WHO Expert Committee on Trachoma, first session, Alexandria
28- November-4 December	WHO Expert Committee on Insecticides, fourth session, Geneva
3-7 December	WHO Expert Committee on Public Health Administration, first session, Geneva
3-8 December	WHO Expert Committee on Biological Standardization, fifth session, Geneva
3-8 December	Joint Expert Committee on the Physically Handicapped Child, first session, Geneva
17-18 December tentatively	WHO Consultant Group on Medical Aspects of Social Security, Geneva

1952

7 January	WHO Executive Board : Standing Committee on Administration and Finance, Geneva
7-12 January	WHO Expert Committee on Drugs Liable to Produce Addiction, third session, Geneva
22 January	WHO Executive Board, ninth session, Geneva

ECOSOC REVIEWS WORK OF WHO

The programme and budget of WHO are subject to yearly review by the Economic and Social Council (ECOSOC) for the General Assembly of the United Nations. This year, in presenting to the 13th session of ECOSOC [1] the reports on WHO's work, past and future,[2] the Director-General explained the mechanism by which WHO's programme is evolved —a mechanism which has been developed to meet the varying needs of the regions served by WHO and which becomes increasingly important with the increasing interests and activities of the Organization. Excerpts from Dr. Chisholm's statement follow :

" . . . Perhaps the most important field in which I could inform the Economic and Social Council would be in relation to the process of programme formation that goes on throughout the Organization . . . This process has evolved over a period of almost five years and has changed quite considerably during the last two years. It has changed particularly because of the developing structure of the Organization, which now is reaching its regionalized structure and so is capable of developing programmes in ways that were not possible until just this last year.

" At the beginning of the work of the Organization, programmes were determined almost entirely from Headquarters . . . The First World Health Assembly developed programmes concerned, particularly, with some six priorities, but now the emphasis is changing. While these priorities are still of great importance and in many countries are still the true priorities for the work of the Organization, in other countries they are of lesser consequence and have been replaced, to a considerable extent, by other concerns. In its present stage of development, WHO programme-planning is something like this : Programmes begin in various places—inside countries, with the public-health authorities of those countries ; in expert committees, which advise the World Health Organization ; in other agencies of the United Nations ; and in non-governmental agencies. Elements of the programme come from all these sources.

" . . . Staff members of the Organization, together with a considerable number of temporary consultants obtained from many countries of the world, frequently visit the countries which ask for assistance in developing their health work. An attempt is made to help the local authorities identify the weak points in their health administration and to determine the next steps to be taken in evolving their health programmes and developing their health organization. Next, an attempt is made to understand how these

[1] United Nations Economic and Social Council (1951) *Official Records, thirteenth session*, 506th meeting, page 235

[2] Contained in *Off. Rec. World Hlth Org.* 30 and 31

requirements may be met. The facilities within the country and the resources available through the United Nations (including technical assistance) and through bilateral assistance are all canvassed to find where best can be obtained the types of assistance that each country needs in order to take the next appropriate steps for its own development. Consultations are held at each stage with other organizations, including those concerned with all types of bilateral technical assistance—the United States bilateral technical assistance programme, the Colombo plan, and others. Then the World Health Organization considers such facilities as may be provided within the general programme of work which has been approved by the World Health Assembly. All programmes are developed within the framework that has been determined by the Assembly, this being based largely on the same considerations, and indeed somewhat changed to fit the criteria, that have been established—and very usefully established—by the Economic and Social Council.

" The programmes developed within each country with the assistance of technicians supplied by the World Health Organization are then taken to the regional committee meeting, where a regional programme is developed in which local programmes are adjusted to fit the requirements of the whole region and in which certain elements of the programme are reduced because they can be taken care of by regional activity instead of strictly national activity . . . These [regional] programmes are sent in to Headquarters, where the Secretariat puts them together into a world programme, taking into account considerations that have been brought forward by the Economic and Social Council, the General Assembly, other specialized agencies, and the expert committees of the World Health Organization. And so a programme is produced which is then sent to the Executive Board of the World Health Organization, which considers this programme and transmits it, with comments and recommendations, to the World Health Assembly. Finally, the Assembly considers and adopts the programme for the succeeding year.

" This relatively complicated way of developing programmes is in the interests of ensuring that the programmes really do fit the countries which are obtaining help from the World Health Organization. Programmes are not produced at Headquarters ; they evolve out of the felt and expressed needs of the countries themselves. There is opportunity to revise, to adjust, and to change the specific programme appropriately in relation to the attitude of a considerable number of bodies, among them the Technical Assistance Board and the Technical Assistance Committee.

" The World Health Assembly considers the programme that is brought to it, with the comments and recommendations of the Executive Board, in the light of its own four-year programme and of the comments that have been made the previous year by the Economic and Social Council and by the General Assembly of the United Nations ; it makes such changes in

the programme as it finds appropriate in order to fit those comments or recommendations. There is, therefore, a quite dynamic, living, programme-developing system . . .

" The constitutional responsibilities of the World Health Organization are well taken care of in this whole picture. All the other agencies which are working in the health field . . . have recognized the overall responsibility of the World Health Organization for co-ordination in international health, under the responsibility of the Economic and Social Council, which in turn co-ordinates health with all the other activities of concern to the United Nations family. The bilateral technical assistance programmes are co-ordinated, and surprisingly well, with international health programmes. It is to be recognized that some of the elements in the motivation of the various organizations working in the field of health vary somewhat . . . In spite of the somewhat varying attitudes, it has been found possible for the World Health Organization to fulfil its overall co-ordinating function in health work with the consent and very active co-operation of all other organizations working in that field.

" At the beginning of its history—in its Interim Commission days—and later in its Assembly and Executive Board, the World Health Organization found itself somewhat concerned about evidences of what it thought of as encroachment on the health field by a great variety of other organizations. There is no longer any such concern : it is quite evident that there is more health work to be done than can be done by all the agencies that have money available for that purpose. It has also become evident that through the mechanisms that have been established by the Economic and Social Council, a degree of co-ordination has been obtained, and can be maintained, which will prevent damage being done to the orderly development of health services in countries. I do not mean that that is any easy thing to do ; it may be very difficult, and is difficult at times ; but it can be done if the degree of co-operation which obtains at present continues into the future.

" There is now, thanks largely to the resolutions passed by the Economic and Social Council itself, consultation at every level on programme-planning : at the present time, the World Health Organization does not make any commitments in terms of programme in any of its activities without consultation with the appropriate bodies of the United Nations, in order that they may signify their interest or their ability to take on part of the work or to supplement the work appropriately to their own particular interests . . .

" There is in the World Health Organization a trend toward longer-term planning. I have suggested to you the mechanism by which the Executive Board develops each year appropriate changes or shifts in emphasis in its long-term planning over a four-year period, which it then recommends to the Assembly and which the Assembly revises as it wishes and finally adopts. Now the time is coming when the regional committees are beginning

to develop . . . longer-term plans for the regions—again, within the framework of the long-term plans provided by the Assembly and taking into consideration the real needs of the countries concerned . . .

" At this stage it is not possible for the World Health Organization to produce any very convincing evidence of the effectiveness of its work . . . Much of it . . . will come to fruition in the future. It is easy to say that so many millions of people have been protected against malaria, which is quite true ; and it is easy to point out various things the World Health Organization has done ; but at this stage of development it is not possible to produce real evaluation of the social effects of the work of the Organization and what it is doing to the ability of countries to get on with their own development. We have plans for, and we are developing, evaluation procedures which, we hope, within the next three or four years will make it possible for us to report to the Economic and Social Council and to the World Health Assembly the results, in convincing terms, of the work of the Organization. But, in very many cases, the Organization is still at the level of laying groundwork, of building foundations on which sound health-development may take place and on which sound health-services may be developed within countries. We are having to provide, in co-operation with other agencies—with UNICEF and UNESCO—and with the United Nations, fellowships for training in the basic sciences related to health, such as bacteriology, biochemistry, and various subjects in which it is necessary to have technically trained, competent people within the countries before it is sound to develop the institutions which can provide the foundation on which sound health-organization can be built and on which sound health-services may be provided to the people. It is not possible to do these things overnight. It is a matter of growth and training which, in many cases, may require years to become effective . . .

" The World Health Organization does not make any attempt whatsoever to impose foreign patterns on any country, but only to make available techniques that may have developed in other parts of the world and that are capable of that degree of adjustment to local conditions which will make them serviceable and useful to governments in their own efforts to improve their own conditions and get on with their own development."

General approval of WHO's work was expressed by various delegations at the ECOSOC meeting. Particular praise was accorded the adoption of the International Sanitary Regulations, the co-operation with other agencies and organizations, the successful campaigns against malaria, and the activities relative to training of health personnel.

Some reservations were voiced concerning the Organization's emphasis on decentralization. The delegate from Iran urged that WHO should not forget that it was a world health organization and not a federation of organizations. The Belgian, French, and United States delegations warned that excessive regionalization might lead to relinquishment of functions

of control and co-ordination by the Executive Board and the World Health Assembly.

The budget of WHO was criticized by several of the delegates, some feeling that it was too ambitious, others that more " realism " was desirable, and still others that stabilization should be attempted. The United States delegation called attention to the provisions of paragraph (*f*) of Article 50 of the WHO Constitution, by which regional committees are empowered to recommend additional contributions by the governments of a particular region if the allotted proportion of the central budget of WHO proves insufficient for carrying out regional functions. It was suggested that this procedure might aid in financing programmes of special interest to specific regions.

Following the comments of the delegates and further clarification of several points by the Director-General, the report of WHO was noted with appreciation by the Economic and Social Council, a resolution to this effect being adopted by 15 votes to none, with 3 abstentions.

TECHNICAL DISCUSSIONS ON THE EDUCATION AND TRAINING OF MEDICAL AND PUBLIC-HEALTH PERSONNEL

An innovation at the Fourth World Health Assembly was the participation of the delegates in technical discussions on the " Education and Training of Medical and Public-Health Personnel ", a subject suggested by the Executive Board. General satisfaction was expressed with regard to these discussions, and similar ones will be a part of future assemblies.

The discussions were based on extensive and valuable documentation submitted by Member Governments. It is hoped to publish this documentation, in summarized form, in a forthcoming number of the Bulletin of the World Health Organization.

Below appear four papers : a report on the discussions by Dr. R. Sand, Rapporteur of the general meetings at which Professeur J. Parisot served as Chairman, and the reports of the three working groups, which discussed (1) undergraduate medical education, (2) specialist training in public health, and (3) training and utilization of auxiliary personnel in medical and health services.

GENERAL REPORT

Dr. RENÉ SAND

Previous contributions

The history of medical education is dominated by improvements in pedagogy, which enrich its methods ; by progress in science and technology,

which widens its scope ; and by the needs of society, which dictate its curriculum. This threefold adaptation has become particularly important during the last quarter of a century. Government or academic authorities in most countries have appointed commissions to consider the revision of medical and allied studies. The British Medical Association has conducted investigations from the point of view of the medical profession ; the Association générale des Etudiants en Médecine de Paris, from the point of view of university students ; and the Association of American Medical Colleges, from the point of view of the teaching profession. The Royal College of Physicians, London, the International Council of Nurses and the national associations of nurses, the Rockefeller and Commonwealth Foundations, the World Medical Association, and many other groups have tackled this subject, which eminent university teachers—from Abraham Flexner to Raymond B. Allen and Henry E. Sigerist—have studied thoroughly.

The Health Organization of the League of Nations considered the training of public-health specialists as well as of physicians : in its *Bulletin*,[1] Sir George Newman for Great Britain ; C. Hamel, J. Jadassohn, C. Prausnitz & M. Taute for Germany ; G. Roussy for France ; and E. Gorter for the Netherlands made a critical analysis of medical studies, accompanied by general surveys by J. Tandler and E. Burnet, which can still be read with profit.

At WHO, this subject has been dealt with by the Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel [2] and by the Expert Committee on Nursing.[3] Other expert committees have studied special aspects of medical training.

Goal to be reached

To imbue the teaching with a new spirit engendered by the needs of the times and by social progress ; to co-ordinate the stages, branches, and methods of teaching ; to harmonize the training of the various persons engaged in work for the protection of health ; to extend the experience of the student from the laboratory and hospital ward to the out-patient department, the family home, the health service, and the social agency ; to teach him to take his place in a team consisting of nurses, social workers, sanitary engineers, and statisticians ; to give psychological, economic, and social considerations, as well as constructive medicine, preventive medicine, and restorative medicine, their due place side by side with curative medicine—such are the recommendations expressed in various ways during the last 25 years by all those who, as individuals or groups, have been

[1] *Quart. Bull. Hlth Org.* 1932, **1**, 7, 159, 315 ; 1933, **2**, 483, 620
[2] *World Hlth Org. techn. Rep. Ser.* 1950, **22**
[3] *World Hlth Org. techn. Rep. Ser.* 1950, **24**

concerned with the training of physicians, nurses, and health personnel of all kinds.

Attempts at reform

The situation has, of course, improved ; but the improvement has varied in degree from country to country and even from one school of medicine to another.

The teaching of hygiene has on occasion become so penetrated with social considerations as to bring about the adoption of the title " Chair of Hygiene and Social (or Preventive) Medicine " or even of " Chair of Social Medicine ". Professors of medicine, surgery, obstetrics, paediatrics, and psychiatry have inaugurated medico-social lectures. In a number of US universities, the students go to observe a patient or a family at home and draft a medico-social report which is discussed in a meeting of professors, nurses, social welfare workers, and students ; they undergo a period of practical training in health services or medico-social organizations. In Norway, this training is required in the probationery period following the course of studies. Chairs and institutes of industrial medicine have been created throughout the world. In Great Britain, they are known as Chairs of Occupational Health, just as Chairs of Paediatrics are known as Chairs of Child Health ; and students spend as much time with healthy children, in clinics for infants and in school medical services, as with sick children in the wards and the out-patient departments.

In certain schools, preventive, social, and industrial medicine form a continuous curriculum side by side with that of pathology and clinical medicine. Very early in his training, the student learns to look upon the physician as the guardian of health and to consider disease as a collective phenomenon resulting from environmental influences. This teaching begins at the pre-clinical stage, where the study of growth, nutrition, and fatigue introduces social considerations into physiology. The medical examination of students familiarizes them with preventive medicine. All this is done without overloading the syllabus ; it is a psychosomatic, social, and humanistic orientation given to the studies rather than an addition to them, contrasting with the mechanistic orientation born from discoveries in pathology.

Isolation and its effects

On the whole, however, these first steps are still exceptional, and the medical profession, the hospital, the medical school, and the teachers themselves work in isolation.

Confined within the narrow limits of the individual practice of curative medicine, too many practitioners are heedless of the public-health experts and remain deaf to the voice of public opinion and of the authorities who are asking them to work more actively for the preservation of health.

Having no relationship with the secondary schools which send it students, the medical faculty often lives within its own narrow circle, without organized contacts with the medical profession, nurses, health services, and social organizations ; as one of the members of our group expressed it, the " producers " of medical science should come into closer contact with its " consumers ".

In addition, every professor tends to confine himself to his own subject and endeavours to add to its importance. Medical teaching is " atomized ". As one of our participants said, the student is given a number of keys to open as many special locks, instead of being given a master key to open for him the entire domain of medicine. A complete division is drawn between pre-clinical and clinical courses. Psychological and social elements are neglected and attention concentrated on the somatic elements.

The hospital, too, is generally isolated from the other institutions which provide medical care ; in the absence of a social service, it is isolated from the homes from which its patients come and to which they return ; and it is isolated from the medical profession and public-health and district nurses, from social services, health departments, and the social insurance organizations which now furnish most of its resources.

Course to be pursued

These various forms of isolation must give way to the establishment of close relationships, co-ordination, and synthesis. The training of the physician must be connected with that of nurses and all types of public-health workers. Even more, the medical student, the nurse, the social worker, and, to a certain extent, the public-health expert, the sanitary engineer, and the statistician must form a team. The ideal arrangement would be for them to be trained in different departments of the same school and to receive the same basic education. An attempt must be made to define the conditions to be fulfilled by auxiliary workers, co-operating with fully qualified staff.

The hospital must take its place as an integral part of all health institutions. It should cultivate both preventive and social medicine and should be closely connected with the medical faculty for the more effective discharge of its teaching functions.

The faculty of medicine must seek the views and aid of the public-health services, social security organizations, medico-social agencies, the medical profession, and the students themselves. It must ensure the co-ordination, or better still the unification, of teaching.

The secondary schools and the medical faculties should teach young people how to study, observe, think, and reach decisions ; how to analyse and guide themselves ; how to approach marriage and the rearing of children ; and how to carry out their professional and civic duties. In a

word, teaching should open the door to life and deal with life, preparing for the tasks of the physician, nurse, and health worker, which are pre-eminently human tasks. Teaching should take man as its subject.

FIG. 1. TECHNICAL DISCUSSIONS

Left to right : Professeur R. Sand, Rapporteur ; Professeur J. Parisot, Chairman

Work of the discussion groups

The reports which follow give an impression of the discussions at the two plenary meetings and in the three study-groups.

Members taking part in the discussions noted a resolution of the Joint ILO/WHO Committee on Occupational Hygiene.[4] Dr. A. Grut, of the International Labour Office (ILO), also mentioned a resolution by the Committee of Experts on Indigenous Labour,[5] recommending a study of the means by which members of indigenous communities can most effectively participate in programmes of medico-social protection, whether as doctors and nurses or as liaison and propaganda agents.

Action by WHO

The participants expressed their satisfaction with the methods employed by WHO and its regional offices to encourage professional training : documentation, convening of expert committees, granting of fellowships, organization of study courses and meetings, and supplying publications and teaching materials. Their unanimous desire is that these activities should be expanded.

Nature of the technical discussions

During the discussions, governmental and non-governmental delegates alike made important contributions. A students' delegate was heard to

[4] Unpublished working document WHO/Occ. Health/2
[5] *Int. Lab. Rev.* 1951, **64**, 76

express the wish that preventive and social medicine should be given their due importance ; already, he stated, Danish students are devoting themselves to social observations, of their own accord.

Complete freedom of expression and a generous spirit of co-operation and service characterized the discussions, which are of interest to all countries, no matter what their stage of development.

The delegates were both too numerous and too few to frame detailed conclusions, which would have called for recourse to a great number of authorities and for the preparation and analysis of documentary material covering all countries. Only some twenty countries answered WHO's request for documentation. Lastly, and especially, so vast and thorough an investigation would have required months, if not years.

Such was not, however, the object of these debates, in which organizers and participants in no way intended to disregard the competence of ministries of education, ministries of health, and UNESCO. The aim was simply to indicate, in general terms, what the training of the physician, the nurse, and other health workers should involve if they are to be in a position to give full protection to the health of the public, adapting themselves to the needs of individual countries and to their human and material resources.

Continuation of the discussions

The participants desire that the documents summarizing their work should be communicated to the various governments and to the regional offices, and that they should be widely circulated among those interested. They anticipate from this a stimulation to new efforts, as well as fuller documentation, the compilation and analysis of which might be undertaken by the Division of Education and Training Services. For their part, the Expert Committee on Professional and Technical Education of Medical and Auxiliary Personnel and the Expert Committee on Nursing should continue their investigations. The Fifth World Health Assembly might profitably take up again the technical discussions begun at the Fourth Assembly and extend them to include the subject of protection of students' health.

The delegates unanimously expressed their gratitude to the directing officers and staff of WHO, particularly to Professor E. Grzegorzewski and his co-workers, for the facilities and assistance given them. They also expressed appreciation to Professeur J. Parisot, who presided over the general sessions ; to Sir Arcot Mudaliar, Professor G. W. Anderson, and Mrs. Aung San, who presided over the three groups ; and to Professor O. Andersen, Professor Z. Shakhashiri, and Dr. R. M. Morris, the Rapporteurs.

Group I

UNDERGRADUATE MEDICAL EDUCATION

Four sessions of the group were held under the chairmanship of Sir Arcot Mudaliar (India). Professor O. Andersen, of Denmark, acted as Rapporteur.

At the opening session the group noted the studies made in many countries and by many institutions on the training of undergraduates. In view of these studies it was agreed that discussion should be limited to a consideration of the broad principles that should be taken into account in a study of the adequacy of the present education of medical undergraduates to prepare them to meet the social, as well as the technical, problems of the practice of medicine, including preventive medicine. The decision was extended to cover the types of instruction, including field experience, which should be incorporated into the curriculum to ensure that medical graduates are adequately equipped to meet their sociological and technical responsibilities.

It was recognized that the doctor must be capable of supervising the physical, social, and mental well-being of the community with which he works. To enable him to do this, considerable modification of the education of the potential doctor is needed. At the present time pre-medical education in many schools and colleges places too much emphasis on physics and chemistry, and too little attention is paid to subjects such as psychology, anthropology, and sociology. This bias has been determined in part by the emphasis given to chemistry and physics in the medical curriculum and in part by the shortage of teachers of psychology, anthropology, and sociology.

In the undergraduate stage it is desirable that the student should be introduced as early as possible in his medical training to the concepts of human ecology. This can be achieved by including a short series of orientation lectures at the beginning of the medical course. These lectures should be given by physicians, public-health workers, social workers, social anthropologists, and others. Opportunity should be taken during the training of the undergraduate medical student to point out the close relationship which should exist between the medical and the nursing care of the patient. It was recognized that, in view of their future team activity, nurses and doctors should have planned opportunities to study together the total care of the patient.

Attempts should be made to break down the barriers between pre-clinical and clinical studies so that the two phases of training are completely integrated. This can be achieved in at least two ways : by including some contact between the student and clinical medicine in the pre-clinical course of training and starting hospital work in the first year, and by conducting

tours to wards and homes of sick people as part of the study of pre-clinical subjects, e.g., physiology, biochemistry.

The teaching of mental health should be included in the pre-clinical course. Probably the most effective way to do this is in small discussion groups in which the student participates. These discussions enable him to express his own reactions to human problems and to change his opinion in relation to these problems without harm to himself.

In the clinical part of the training, a student should be orientated towards disease as a community phenomenon, the result of the effects of the total environment on the individual. To do this, emphasis must be placed on preventive medicine and on social and mental factors in the etiology of disease. This can be achieved without increasing the length of the course by including a study of the mental and social factors in every case along with the somatic. The mental and social features of the history of every case can be gathered only from a study of the physical and cultural environment in which the patient lives and works, which involves visits to the homes of the patients. A number of universities and hospitals have already included a study of the social and mental factors of each case as routine procedure. For this work trained social workers are used. In some circumstances it seems that the student himself can participate in these home visits, working under the supervision of trained social workers or a physician interested in social medicine.

At the present time many clinical teachers are not adequately equipped to discuss the mental and social factors in the etiology and pathology of disease. This difficulty has been met in some hospitals by the formation of a team composed of a physician or surgeon and a medical social worker, who may be a qualified physician.

Another way of introducing the medical student to the social aspects of health and disease is to arrange for a period of work in infant-welfare clinics or school clinics. In some countries this association with social medical units is extended to " internship " after completion of the theoretical medical course, before the graduate receives his state licence.

Attention was drawn to the amount of time devoted to training in the various specialities during fhe undergraduate period. Often this training is at the expense of general medicine, surgery, and obstetrics, and too frequently is at the postgraduate level. To some extent this imbalance in training can be corrected if the various specialities are considered as part of general medicine, surgery, and obstetrics, and not treated as highly discreet subjects. Every endeavour should be made to break down the barriers between the main branches of clinical medicine and between these branches and the specialities.

It is important for each teacher to know what other teachers and lecturers contribute to the total medical curriculum. An exchange of teachers between clinical medicine and public health is often desirable. In some

universities there is a free exchange between clinical departments and public-health schools of lecturers in psychology, paediatrics, and public health.

It would be valuable to give the medical students three or four lectures stressing the duties and rights of doctors in case of war in conformity with the Geneva Conventions and the national legislation. The lecturers and documentation may be obtained from the National Red Cross Society.

Brief reference was made to the idea now being studied in a number of countries that a shortened course of training for doctors should be introduced. This is being advanced as one way of meeting the great shortage of doctors in these countries. In the opinion of the group this is a retrograde step and cannot be supported in principle. One fully qualified doctor is better than twelve or more poorly trained doctors of a lower standard.

In order that undergraduates may be properly trained, it is essential that the universities and teaching hospitals be adequately staffed. This refers to both the number of teachers and the quality of their training and experience. Attention was drawn to the fact that a committee had been set up in the United Kingdom to study the training of the teacher in medical schools. This report, when published, should make a useful contribution to knowledge on this subject. In the opinion of the group, WHO can help countries in the training of teachers by providing fellowships, etc. Help is particularly needed to train an adequate number of teachers in anatomy, physiology, pharmacy, biochemistry, and pathology. There is a great shortage of these in the less well developed countries.

In some underdeveloped areas the existing facilities are inadequate and need to be strengthened. Many members of the present teaching staff require further higher training, additional teaching staffs are needed, and equipment is required. WHO can assist in a number of ways. A two-way traffic between an established teaching institution and one requiring assistance, by means of which the better-established institute would provide teachers on exchange, is one way of providing assistance. The establishment of a central institute for training teachers would be another valuable contribution to the solution of this problem.

A question was raised regarding the possibility of securing teachers for some countries in urgent need of them from the ranks of the medical persons who are to be found at present among the displaced persons. The Medical Director of the International Refugee Organization (IRO) gave the necessary explanation pertaining to this programme.

The selection of students to enter the medical profession and the number admitted for training each year were discussed at some length. While agreement was reached that some method of selection was highly desirable, it was not possible to define the techniques that should be used. Reference was made to the need to take into consideration the following factors, if an attempt is made to select men and women for training as doctors : intelligence, personality, the degree of sympathy for one's fellow, the capacity

to develop an easy social approach, etc. Some studies on this subject are in progress, but much more information is needed. The group suggested that WHO might draw the attention of governments to the need for each country to study this problem in terms of the conditions prevailing in the country.

The number of students admitted each year seems to be a major problem in most countries. A number of facts emerged during the discussion. Satisfactory teaching cannot be carried out if the number of students is greater than can be adequately handled by the number of teachers and the amount of equipment available. In general, each faculty of medicine is the only group that can determine the number of students that can be satisfactorily taught with the personnel and equipment available. The number of students that are needed to meet the requirements of a country should be determined by those acquainted with the extent of the present and future health programmes. It was suggested that any group or committee considering this problem should include representatives of the practising doctors and of the faculty of medicine. If the number of doctors needed in any country is greater than the training facilities, then consideration should be given to providing additional training facilities rather than to overcrowding the existing ones.

In connexion with training of undergraduates, the question was raised as to whether the training of postgraduates should take place in the same institutions. Most of the group were in favour of each medical school's being in possession of both kinds of training, i.e., facilities for training of both students and postgraduates. The importance of other non-university hospitals and institutions with all facilities for education was stressed on this occasion.

The question of training of postgraduates emerged more and more from the discussion, so that the Chairman had to draw the attention of the meeting to the fact that problems connected with the training of the general physician were to be discussed later on, probably at the next Assembly.

Another point which was emphasized in the discussion was that the curriculum must not be overcrowded, but should concentrate on training the future physician in the knowledge of man.

The attention of the meeting was called to the health of the medical students. As this question, however important, was not included in the programme for discussion by this group, the matter was referred to the Director-General of WHO.

The group wishes to emphasize that, in considering the problem of undergraduate education, it is conscious of the fact that it has merely touched on a great number of very important problems, many of which require considerable study. It is true that investigations into some of these are now in progress in a number of countries ; however, additional studies are required.

The discussion at the Fourth World Health Assembly has provided a unique opportunity for an exchange of ideas and for the formulation of problems which are common to many countries. The group suggests that the Fourth World Health Assembly should give consideration to holding a discussion during the Fifth Health Assembly on further aspects of undergraduate medical education. In preparation for such a discussion it is desirable that the Member State initiate inquiries and studies on the problems that were discussed during the present meeting and on other problems related to this subject. The results of these studies should be made available to Member States in time for them to be studied adequately before discussion takes place at the Fifth Health Assembly.

Group II

SPECIALIST TRAINING IN PUBLIC HEALTH

Group II held four sessions under the chairmanship of Professor G. W. Anderson (United States of America). Professor Z. Shakhashiri (Lebanon) acted as Rapporteur.

The discussions of this group were directed at the problems of advanced training for the various professional personnel devoting their careers to organized public-health work. During the course of the discussions many opinions were advanced, but no attempt was made to obtain formal conclusions or recommendations from the group as a whole. The following represents merely a summary of ideas most commonly expressed, particularly of those on which there seemed to be the least disagreement.

The problem of specialist training for public-health work is that of providing postgraduate instruction for those with a variety of previous professional backgrounds. Among the many professions which contribute to the public-health programme and form part of the public-health team are physicians, nurses, engineers, dentists, veterinarians, statisticians, educators, various groups of laboratory personnel, and, in many countries, social workers and midwives. It was agreed that each of these should, before coming into public-health practice, have a sound basic professional background. It was clear from the discussions that existing basic medical and nursing education with its strong clinical emphasis and comparative lack of teaching in preventive and social aspects produces an outlook which may require considerable reorientation for those who proceed to postgraduate training in public health. At present, therefore, specialist training must begin by readjusting the lack of balance which exists in undergraduate professional education. Nevertheless, even if the basic training of these professions were reorganized to give the understanding of preventive medicine which will be needed by *every* member of the medical and nursing professions, those who are to specialize in public health will

still need additional postgraduate training. This postgraduate training will have to be obtained either prior to specialization in public health or after a short period of practical experience in a lower-level public-health position before the individual can proceed to positions of advanced responsibility.

It was recognized that one of the chief problems in public-health training is recruitment of suitable personnel in adequate numbers. Although there are marked differences in this respect among the several professions, certain problems seem fairly common to all. Among these are the questions of remuneration, prestige, and mental attitudes. So long as the private practice of the respective professions carries so much greater potential remuneration, which compensates the individual for the expense of training, there will be almost inevitable recruitment difficulties. To a high degree, moreover, those who enter the professions from which public-health workers are drawn are attracted by responsibilities towards individuals rather than towards the community as a whole. This means, for example, that in some countries recruitment of physicians for public-health work is extremely difficult unless this work carries with it some opportunity for clinical contacts. It was recognized, however, that in many of these countries a complete separation of clinical and preventive duties is not possible and may not even be desirable, particularly at the community level, inasmuch as the opportunity to begin a programme of prevention may arise through the relationships created by the provision of medical care. Nevertheless, in all circumstances, a specialist in preventive medicine is needed at a high level to plan and administer the preventive component of health service.

The group examined the types of specialized training currently provided for each of the respective professions. Although there are distinct differences in several countries, depending largely upon different practices in utilization of personnel and functions assigned to them, certain striking similarities were noted. Specialized training is provided to a high degree by universities, either through a special instructional unit for public health or through facilities for advanced study in that part of the university which has given the undergraduate professional education. Another type of training is provided by special institutions not incorporated into an academic framework. Still a third is in-service training provided by public-health agencies for their existing or prospective staff. While there are advantages and reasons for each of these types of educational programme, that associated with universities is apparently finding the greatest support as a means of specialist training. Regardless of which type of educational programme is utilized, there are many advantages in training the several public-health specialists together so that each may have an understanding of his relationship to the others, and a strong sense of teamwork may thus be developed.

Whatever type of theoretical education is provided, the training must also include a period of supervised field experience so that the trainee may

have an opportunity to apply his theoretical knowledge to the solution of practical problems. This type of field training has been more extensively developed for public-health nurses than for some of the other professional groups. The provision of refresher courses is equally necessary, especially for those working outside the larger centres of population. Only through such courses can many of these workers keep abreast of new developments.

For the initial specialist training of public-health workers, emphasis should be placed on use of local facilities or, if none are available, on facilities in near-by areas with comparable social, economic, and health situations. Unless such local facilities are utilized, there is danger that the trainee will find difficulty in applying his theoretical knowledge to the problems of the community in which he will work. It was emphasized in this connexion that establishment of regional training centres is desirable inasmuch as many countries are not in a position to provide national training resources. On the other hand, there are distinct advantages in providing foreign training for those who carry responsibility for direction and development of community-wide health programmes. Thus, in the selection of fellows for foreign study, preference should be given to those who will be in a position to influence other persons, either in administration or teaching. If fellowships are used for such persons, greater benefit will accrue to the entire community. National authorities responsible for the choice of subjects in which fellowships should be awarded should recognize the great importance of choosing those fields which will have the most permanent effect upon the public-health problems of that country. Notable among these are environmental sanitation and health education of the public, as well as other fields of public-health practice.

In the development of local training facilities, visiting experts from other countries also have definite value. Such persons, if not too closely bound to the practices of their own countries, will provide added stimulus and new ideas, and will, at the same time, carry back to their respective countries both an understanding of the problems of the areas they have visited and new ideas as to the solution of their own problems.

As part of a broad programme for refresher courses, short-term fellowships should be used to bring together professional workers from several countries for discussion seminars on a given public-health problem and its possible solution. Such seminars provide a free exchange of ideas and a sharing of experiences from which may frequently evolve effective methods of dealing with such problems.

A national programme of training should embrace a proper balance between local facilities (including demonstration areas), fellowships for foreign study, utilization of visiting experts, and participation in national or international seminars. It cannot be too strongly emphasized that long-range improvement of educational facilities depends upon proper planning and co-ordination of all these methods.

Finally, attention was directed briefly towards the content of the training programme. In addition to advanced studies in the appropriate professional specialities (still lacking in many countries), such programmes should embrace instruction in basic public-health problems and practices and consideration of the economic and social milieu in which these problems are set. In very few training courses is sufficient attention given to the principles of administration, the application of mental hygiene to the problems of public health, and proper understanding of the community and the family. It is essential that future training programmes should devote more attention to these fundamental considerations.

Group III

TRAINING AND UTILIZATION OF AUXILIARY PERSONNEL IN MEDICAL AND HEALTH SERVICES

Group III held five meetings under the chairmanship of Mrs. Aung San (Burma). The Rapporteur was Dr. R. M. Morris (Southern Rhodesia).

After a general review of the conditions of training and use of non-professional auxiliary personnel in various areas, the group agreed to discuss the following categories :

(1) those who perform some of the functions of registered doctors ;

(2) those who act as nursing assistants ;

(3) those who perform functions in connexion with midwifery ;

(4) those who act as assistants to, or in place of, sanitary engineers ;

(5) those who act as assistants to, or in place of, registered dentists ;

(6) those who assist or function in some respects in place of fully qualified medical laboratory technicians ;

(7) special categories of auxiliaries recruited and trained for specific purposes, such as vaccination against smallpox, antimalarial duties, bilharziasis control, antitrypanosomiasis work, and the control of various other diseases.

1. *Auxiliaries who perform some of the functions of registered doctors*

It is apparent that in many parts of the world it is essential for the development of medical and health services to utilize persons other than registered doctors who have been trained in the diagnosis and treatment of the commoner diseases of the area in which they are to work. Their titles vary from " medical assistant ", " apothecary ", " compounder ", etc., to names which suggest that they are primarily " nurses " with training in diagnosis and methods of treatment. In discussing the utilization of such persons, many speakers stressed the point that they should as far as possible

remain entirely in public employment, so that their work can be controlled in such a way as not to conflict with that of registered doctors.

There is much diversity in the duration of the training these auxiliaries receive in various areas, the range being from six months to five years. The requirements of basic education before training also vary, the authorities in some areas being satisfied with four years of elementary education, while others require eight years or more.

2. *Auxiliaries who act as nursing assistants*

The training of nursing auxiliaries also shows wide variation, the training being intended to permit them to perform two major functions—namely, assisting the graduate nurse in hospitals, or working on their own in isolated and rural areas. There is a wide range in the types of training given ; in many instances it has no theoretical aspect. The duration of the student period varies from three months to three years.

In some areas nursing assistants carry out some of the diagnostic work done elsewhere by medical assistants. It was emphasized that the exact nature of the work which these assistant nurses are allowed to do should be clearly defined ; and it was urged that provision be made to enable them, after satisfactory service as assistants, to go on to full qualification.

3. *Auxiliaries who perform functions in connexion with midwifery*

In dealing with the problem of maternity and midwifery assistants, many speakers stressed the problem of the " hereditary " midwife whose knowledge is derived from empirical practice. They mentioned the steps taken in their countries to persuade these women to take short courses of training in the elements of asepsis and of modern midwifery practice.

Training for midwifery auxiliaries varies from six months to two years with, in most cases, a subsequent period of work under supervision. It was emphasized that wherever possible midwifery training should be preceded by a nursing assistant's course. In some areas it is not yet possible to insist on any standard of general education before specialized training.

All appreciated the value of maternity assistants, who can either help the fully qualified midwife in maternity homes or work on their own in villages and rural areas. Evidence was also given of the value of suitably trained maternity assistants in leading health education in backward countries and thus stimulating a demand from the people for further services in the field of preventive medicine.

4. *Auxiliaries who act as assistants to, or in place of, sanitary engineers*

In this category the information provided showed marked diversity of aims. In some areas candidates are selected who have had a fairly long

elementary education. They are trained for three years with the intention that they should both provide and maintain the facilities necessary for elementary environmental sanitation. In other areas recruitment is largely for specialized purposes. Almost all speakers thought that assistants to sanitary engineers, especially those called upon to work on their own in rural areas, should have a training which will enable them to carry the elements of health education to the people they are serving. They should therefore be recruited from among the people they will serve, to ensure that they have a full understanding of the local culture. The group thought that very great advances in health education can be made by careful recruitment and use of these auxiliaries as health educators, because they can demonstrate, in a practical way, the benefits of prophylactic medicine.

5. *Auxiliaries who act as assistants to, or in place of, registered dentists*

There was less discussion on this point, and it did not seem that many members of the group had yet considered the problem. Mention was made of the possibility of giving dentists more time to deal with major dental problems by using assistants who have been trained to carry out the preliminary examinations. A higher grade of dental assistant, who can do extractions and simple fillings, can be provided by recruiting persons with a sufficiently high standard of education and giving them a course of theoretical and practical training of not less than two years.

6. *Auxiliaries who assist, or function in some respects in place of, fully qualified medical laboratory technicians*

There was no doubt about the value of persons intensively trained in comparatively narrow fields of clinical microscopy, the content of the training depending on the commoner diseases of the area in which they are to be employed. The courses of training given at present vary from six to twelve months. These persons can be employed either in laboratories, where they can do the more simple parasitological examinations, or in rural areas, where they can work in collaboration with doctors or medical assistants. It is not essential that their basic general education be very high. In some areas local needs may best be covered by training persons with dual qualifications as clinical microscopists and nursing assistants.

7. *Special categories of auxiliaries recruited and trained for specific purposes*

Included in this group are many categories of auxiliaries recruited and trained to deal with special local problems. Many speakers gave interesting and valuable information about specialized training which is often intended to make these auxiliaries competent to deal with one or more of the local endemic diseases in all its aspects. The success attained in several countries

by carefully considered training schemes holds out good hopes that this principle may be extended still further.

Conclusions

The following conclusions would seem to represent the essence of the discussions in Group III :

1. The employment of persons auxiliary to fully qualified professional workers in the major fields of medicine and public health is essential for the adequate development of health services in almost every part of the world today.

2. The greatest need for such persons is in the economically and technically less-developed areas, but even in the more highly developed countries some of them must be regarded as having a permanent place in health schemes, e.g., nursing assistants.

3. Some categories of auxiliaries, particularly assistants to registered doctors—by whatever title they are known—should be considered to be of the nature of temporary expedients. They should be replaced as soon as there are enough qualified professional persons to meet all needs.

4. In selected categories, careful consideration should be given to the desirability of providing means whereby the auxiliary can be promoted to a professional grade.

5. In view of the great diversity of categories of auxiliary personnel, which corresponds to the diversity of needs of various countries, it is not at present feasible to set up internationally agreed minimum standards or regulations for training. But in the interests of the auxiliaries themselves, and especially of their status in the community and of their opportunities for advancement, it is important that each government set up a standard of qualification for each category employed. This standard should include reference to minimum basic education, length and content of the training syllabus, and the nature of the qualifying examinations. Such standards should be frequently and regularly reviewed.

6. Help can be given to local centres of instruction or training through the provision by WHO of teaching equipment such as films, film strips, and guidance materials for teachers.

7. As the information available on the training and use of auxiliaries is at present lacking in exact detail, it is thought that further investigation and study could usefully be made by the World Health Organization. This might be done by inviting governments with experience in the subject to submit further details so that the basic materials for such a study may be collected and systematically reviewed.

DENTAL CARE FOR SCHOOLCHILDREN

An Interesting Experiment in New Zealand

During his stay in New Zealand as a WHO Fellow, Dr. John T. Fulton, Dental Services Adviser, Children's Bureau, Social Security Administration, Washington, D.C., USA, studied one of the most interesting experiments in dental care of recent years. According to the system in force in New Zealand, nurses, after a two-year technical training course, carry out a great part of the dental treatment given to schoolchildren in the school clinics. This system has given rise to worldwide controversy among dentists, some of whom assert that the health of the children is endangered by delegating dental care to partially trained auxiliaries. On the other hand, as others have pointed out, no country has, or is likely to have shortly, a sufficient number of dentists, so that the training of supplementary personnel is essential and fully justified.

Dr. Fulton's study, entitled " Experiment in dental care : results of New Zealand's use of school dental nurses ", has just appeared in the WHO Monograph Series.[1]

School dental clinics in New Zealand are operated by dental nurses, employed and trained exclusively by the Department of Health. The training period covers two years, a total of 1,608 hours. On completion of training, the dental nurse is assigned to a school dental clinic. Under the general supervision of a dental officer, she carries out examinations, prophylaxis, fillings, extractions, and gum treatments, and also gives dental education to elementary schoolchildren. This service is, moreover, available to children below school age. In the fiscal year ending on 31 March 1949, an average of 715 children per nurse were cared for in the school dental clinics. On the average, each child received 2.2 hours of service, comprising 6.5 operations for that year. Such clinic service was available to 97% of all the elementary schools—both public and private—in New Zealand, and 85% of the children in these schools were registered with the clinics.

To complete his study of the organization of this system, Dr. Fulton investigated the incidence of dental caries among the schoolchildren as well as the results of treatment given. He came to the conclusion that New Zealand's national dental programme has achieved considerable success in combating dental caries among schoolchildren, since a high proportion of decaying teeth have been saved by fillings and a low rate of tooth-loss established. Dental caries is, in fact, very prevalent among New Zealand children. The average seven-year-old New Zealand schoolchild has two

[1] Fulton, J. T. (1951) *Experiment in dental care : results of New Zealand's use of school dental nurses*, Geneva (*World Health Organization : Monograph Series*, No. 4), 87 pages, price 5/-, $1.00, or Sw. fr. 4.00

permanent teeth attacked by caries. This rate of decay increases by one additional permanent tooth each year, so that by the age of 14 the average child has 10 permanent teeth showing evidence of caries. After treatment, however, the average rate of tooth-loss at the age of 14 is 0.5, and the average number of decayed teeth is 0.5 per child per year. Throughout his inquiry, Dr. Fulton noted teeth showing amalgam fillings of exceptional merit ; 82% of these were the work of dental nurses.

The author shows, in tabular form, the number of operations carried out and of children treated in the 19 clinics which he visited and gives details of the cost of this school dental service.

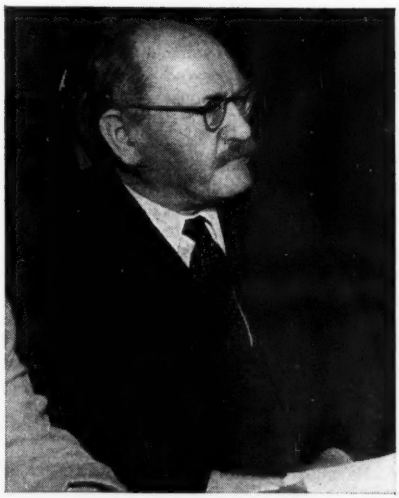
Notes and News

Study-Tour of Public-Health Officials

In October a group of public-health officials from 16 European countries concluded a six-week study-tour arranged by WHO and directed by Professor A. Stampar, WHO consultant, of Yugoslavia. This tour took the participants to Belgium, Scotland, and Sweden, approximately two weeks being spent in each country. In Belgium, particular attention was devoted to industrial health ; new housing projects, medical services, and mining research institutes in coal-mining areas were inspected. In Scotland, the results of the new nationalized health services were observed, visits being paid to both industrial and rural areas and even to isolated areas where the study-group accompanied general practitioners on their rounds. In Sweden, scattered populations and industrial communities were visited, and the group was especially impressed by the development of hospital services.

The travelling study-group included the following : Dr. A. E. de Wever, Belgium ; Dr. P. Wiingaard, Denmark ; Dr. L. A. Kaprio, Finland ; Dr. P. Bianquis, France; Dr. J. Koch, Germany ; Dr. C. Jannopoulos, Greece; Dr. S. Sigurdson, Iceland; Dr. E. Traversa, Italy; Dr. H. J. Dijkhuis, the Netherlands; Dr. T. O. Iversen, Norway; Dr. B. A. V. de Pinho, Portugal; Dr. G. Clavero del Campo, Spain ; Dr. B. K. G. Roos, Sweden; Dr. A. Sauter, Switzerland; Dr. R. J. Peters, United Kingdom; and Dr. R. I. Obracunc, Yugoslavia.

FIG. 2. STUDY-TOUR



Dr. A. Stampar, of Yugoslavia, who led the group of public-health officials in their study-tour of Belgium, Scotland, and Sweden

Dr. Stampar, who directed a similar group under the auspices of the League of Nations some twenty years ago, found that striking progress had been made in public health. Increasing emphasis is being laid on preventive medicine in medical training and in public-health administration, and increasing recognition is being given to the right of every human being to health.

This study-tour, the first scheme of its kind to be sponsored by WHO, was of an experimental nature. Its aim was to provide opportunities for senior public-health administrators to become acquainted with recent developments in public health and to exchange views on problems in countries with different economic, social, and health conditions. The success of the tour is expected to lead to similar study-tours to other European countries in the next few years.

Mental Health

Seminar on alcoholism

The first European Seminar on Alcoholism was held from 22 October to 3 November 1951 in Copenhagen, under the auspices of the Government of Denmark, with the co-operation of the United Nations and WHO. Physicians, psychologists, social workers, nurses, and public-health administrators from 11 countries met to hear lectures and to discuss the causes, the treatment, and the social and public-health significance of alcoholism.

Dr. E. M. Jellinek, WHO consultant on alcoholism, and Dr. M. Schmidt, of Copenhagen, planned and directed the seminar, Other lecturers included Dr. I. Matte Blanco, of Chile ; Dr. E. Jacobsen, Mr. V. Wedell-Wedellsborg, and Professors E. Lundsgaard and E. Strømgren, of Denmark ; Dr. L. Hakola, of Finland ; Professeur L. E. Dérobert and Dr. P. Fouquet, of France ; Dr. P. H. Esser, of the Netherlands ; Dr. Ø. Ødegard, of Norway ; Dr. J. A. Höjer and Professors S. Forssman, L. Goldberg, and G. Lundquist, of Sweden ; Professeur M. Müller, of Switzerland ; Dr. H. Pullar-Strecker, of the United Kingdom ; Drs. R. Fleming and J. Masserman, of the USA ; Dr. S. Betlheim, of Yugoslavia ; and Dr. P. O. Wolff, Chief, Addiction-producing Drugs Section, WHO.

Consultants visit Egypt, India, Iraq, Thailand, and Yugoslavia

Four mental health consultants have undertaken assignments for WHO. Dr. C. H. Gundry, Director of the Division of Mental Hygiene of the Metropolitan Health Committee, Vancouver, British Colombia, has been sent to Thailand. Professor G. Kraus, of Groningen University, the Netherlands, is on a four-month visit to Egypt and Iran. Professor W. Meyer-Gross, Director of the Department of Clinical Research at Crichton Royal Hospital, Dumfries, United Kingdom, is spending three months in India, where he is advising the Indian Government on the setting-up of a teaching centre at the Mysore State Mental Hospital. Dr. P. V. Lemkau, Associate Professor of Public Health Administration at Johns Hopkins University, Baltimore, Md., USA, has completed a mission to Yugoslavia, where he served as a consultant on mental hygiene.

Teaching Mission in Iran

Having successfully concluded its assignment in Israel,[1] the WHO/Unitarian Service Committee Medical Teaching Mission proceeded in October to Iran, where members were received by the Shah of Iran, H.I.M. Mohammed Reza Pahlevi. Dr. L. M. Davidoff, Clinical Professor of Neurosurgery at the New York University Post-Graduate Medical

[1] *Chron. World Hlth Org.* 1950, 5, 275

School, continued to serve as leader of the teaching team, which also included Dr. G. K. Moe (physiology, pharmacology), Dr. E. Warburg (internal medicine), Dr. S. Z. Levine (paediatrics), Dr. L. G. Rigler (radiology), and Dr. L. E. Morris (anaesthesiology).

The medical teaching mission is only one type of aid which is being given to Iran by WHO. Dr. M. A. Maleki, Health Minister of Iran, and Sir Aly T. Shousha, Pasha,

FIG. 3. TEACHING MISSION

Dr. L. M. Davidoff (left), leader of the WHO/Unitarian Service Committee Medical Teaching Mission, is greeted upon the team's arrival in Iran by Dr. A. Kia (right), Undersecretary of State for the Iranian Ministry of Health

WHO Regional Director for the Eastern Mediterranean, have signed agreements covering six health projects which will be undertaken in Iran under the joint sponsorship of the Iranian Government and the WHO technical assistance programme.

Malaria-control Team Completes Assignment

The WHO/UNICEF malaria-control which worked for two years in the Jeypore Hills area of India [2] has completed its assignment. The Orissa Government has taken over the malaria-control operations, with UNICEF continuing to aid by supplying DDT.

A final report on the team's activities reveals the following :

1. A 15% to 20% reduction in the spleen-rate was noted in the demonstration area; a 30% reduction in the size of the spleen was observed.

2. The general parasite-rate decreased by about 50%.

3. In 1950, the monthly malaria morbidity-rate was 18 to 20 per 1,000 persons ; at the close of the operations, these figures had decreased to 1.5 to 3.74 per 1,000 persons.

4. Entomological observations showed that DDT applied at a rate of 200 mg per square foot gave satisfactory vector control for at least ten months.

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[2] *Chron. World Hlth Org.* 1950, 4, 297

FIG. 4. MALARIA-CONTROL TEAM

One of the spraying squads which worked with the WHO/UNICEF malaria-control team in Orissa, India, is here shown weighing out DDT powder, which is mixed with water and applied by the sprayers in the left foreground

Training Course in Insect Control

Brazil is playing host to 20 Fellows from several countries of the Americas at a four-month training course in insect control which opened 21 October at Rio de Janeiro. WHO is providing a number of fellowships, through technical assistance funds, for participants from Colombia, Haiti, Mexico, and Venezuela. The Government of Brazil, in addition to acting as host, is paying for five fellowships.

CORRIGENDA

1951, Vol. 5, No. 3 (March), p. 67

Line 8 : *insert* Israel *after* Iraq

1951, Vol. 5, No. 7-8 (August), p. 219

Line 1 : *for* American College of Chest Surgeons
read American College of Chest Physicians